

# **Vetiver for Sustainable Watershed Management in the Dabie Mountains of China**

## **(Winter Report 2004)**

Vetiver System was introduced to the Dabie Mountains by China Vetiver Network in 1998. Based on successful experience, the project titled Vetiver for Sustainable Watershed Management in the Dabie Mountains of China: Demonstration, Training, and Extension was launched in May 2004 supported by Swiss Re. The project was to introduce and extend vetiver technology for water and soil conservation and for economic tree production in the Dabie Mountains that has an area of about 100,000 m<sup>2</sup>.

Since May 2004, the most important contents of the project have been finished. They are:

- Introducing and propagating the project to village officers and farmers.
- Establishing organization group to carry out the project.
- Preparing various training materials (edition, translation, and printing).
- Distribution of technical materials and water conservation technology.
- Preparation of demonstration plots.

### **The initiation and organization of the project**

To start the project a group from China Vetiver Network went to the project area at the end of May 2004. Discussion was held with local party secretary and the technicians from the soil conservation bureau and soil and water conservation institute. At the meeting China Vetiver Network introduced Vetiver System and its function for water and soil erosion control. A set of technical materials was distributed.

Through discussion a Working Group was formed which consisted of village director, party secretary, technicians, farmers, and member of China Vetiver Network. The responsibility of different people was also discussed and decided. At the end of the meeting a contract was signed.

As an initiation, the Working Group members went to the field to investigate the demonstration site, the Shao Huo Shan Mount that was 400 Mu (about 26 hectares). Two patches of the slope land were selected for the demonstration of vetiver hedges protected tea bushes and vetiver hedges protected chestnut trees.

### **The preparation of training materials**

Training and extension were the most important components of the project, while the preparation of the training materials should be the first step of the project. They should be simple, uncomplicated, easy to read, attractive to most farmers who usually have less education. To prepare training materials, numerous materials including foreign materials and domestic materials were collected and referenced and most suitable experts from different part of the country were invited. Almost all of the training materials had necessary pictures, drawings, or photos. To attract farmers' attention some materials were printed on color paper, while poster was color-printed.

These materials produced included:

- ✧ *Vetiver & Soil Conservation*: FACT Sheets (No. 1-5 issues): printed on different color paper and introduced basic knowledge of soil conservation and vetiver grass.
- ✧ *Vetiver Grass: The Hedge Against Erosion*: A translation booklet from its English version which was produced by The Vetiver Network (International).
- ✧ *Chestnut tree Production*: A booklet introduced chestnut tree planting and cultivation and how to use vetiver grass to protect chestnut trees.

- ✧ *Tea Tree Production*: A booklet introducing basic technology of tea tree planting and management and the method of using vetiver to control soil erosion and improve tea production.
- ✧ *Vetiver Posters*: A printed color poster with numerous photos and vivid drawings introducing vetiver application in China and in the world.
- ✧ *Vetiver Newsletter*: The newsletter introduced Swiss Re supported project progress, recent news on vetiver development in China and in the World, basic knowledge on water and soil erosion.

Contents of technical training and extension included:

- Why erosion should be controlled.
- Water and soil conservation and reconstruction of eroded slopes and terraces.
- Vetiver: its characteristics, growth behavior, management, applications, reproduction technology, and benefit.
- Vetiver based agroforestry technology and crop diversity for water conservation, income generation, and food security.
- Nitrogen-fixing trees, shrubs, and plants for soil fertility maintenance and sustainable farming.
- Contour-planting techniques, commercial tree production and management (chestnut and tea).

### **Training process**

The training included several forms:

- *Formal Training*: Training courses were carried out at village office and the tea processing plant.
- *Self-study*: Supplemented by supervision and multiple training materials, self-study of printed materials is a very cost-effective training method. Small supervision group was organized to spread technologies and to answer farmers' questions.

The trainers were mainly local technicians so that farmers were easy to understand regarding to local tongue. The trainees were local farmers in the project area. In addition to classroom training, some short training courses were held in the field so that farmers can get more knowledge vividly.

In order to get more farmers involving in the project, the experts and technicians visited farmers' families, the village Forestry Farm, and the Elder People Yard distributing training materials and introducing training contents.

The training combined lectures with outside demonstration so that farmers can grasp practical knowledge.

Before the initiation of series training courses the Leading Group visited Farmer Technicians who were fond of cultivating economic trees. We exchanged ideas on economic tree management and collected their experiences and introduced to other farmers during the training courses. For example a farmer told the experts that it would be better to use fruit stem instead of productive stem for chestnut grafting so that the chestnut tree can bear fruit earlier. Then his experience was introduced to other farmers during lecture presentation.

On the request of some farmers who wish to get more profit from vetiver grass, the experts introduced farmers with vetiver application experience for engineering protection in China and in the world. The farmers were encouraged to contact railway and highway sections in order to contract road protection projects using vetiver.

All of these activities started from 21 September and ended on 27 September 2004. Altogether 1000 people received training.

### **The remaining activities**

Now farmers are preparing land for vetiver and economic tree planting. The Leading Group is preparing tea seeds and chestnut seedling. China Vetiver Network is preparing high quality vetiver planting materials. Tea seeding will be finished by Spring Festival (At the binning of February 2005). After the Spring Festival chestnut trees will be planted and in March vetiver grass will be planted.